Observations of Magnitude of Nova Andromedæ made at the Radcliffe Observatory, Oxford.

(Communicated by E. J. Stone, M.A., F.R.S.)

The following estimations of magnitude of Nova Andromedæ were made with the 10-foot Equatorial of 7-inch aperture, except on September 19 and 21, when the Heliometer, of which the aperture is 7.5, was used.

| Day and Hour. |  | Observed Magnitude. | Observer.            | Power used.            |
|---------------|--|---------------------|----------------------|------------------------|
| Sept. 9       | h<br><b>I</b> O                                | 8·o                 | R.                   | 45 (a)                 |
| 17            | 10   | 8.5                 | W.                   | <b>45</b> ( <i>b</i> ) |
| 18            | 9  | 8.5                 | w.                   | 45                     |
| 19            | $10\frac{1}{2}$                                | 8.5                 | w.                   | 45                     |
| 21            | $10\frac{1}{2}$                                | 9.2                 | $\mathbf{w}_{ullet}$ | 45                     |
| 22            | 8  | 9.2                 | $\mathbf{w}$ .       | 45                     |
|               | $9\frac{1}{2}$                                 | 9.3                 | $\mathbf{R}$ .       | 45                     |
| 24            | 10   | 9.6                 | w.                   | 45 (c)                 |
| 25            | $9\frac{3}{4}$                                 | 8·7 (d)             | $\mathbf{R}$ .       | 45                     |
|               | $9\frac{3}{4}$                                 | 9.6                 | w.                   | 45                     |
| 26            | $8\frac{1}{2}$                                 | 10.0                | F.B.                 | 125                    |
| 29            | $9\frac{1}{2}$                                 | 10.4                | F.B.                 | 125                    |
|               | $9\frac{1}{2}$                                 | 11.0                | $\mathbf{R}_{ullet}$ | 125                    |
|               | $9^{\frac{1}{3}}$                              | 10.3                | w.                   | 45                     |
| 30            |  | 10.7                | F.B.                 | 125                    |
| Oct. I        | 9<br>8   | 10.9                | w.                   | 125                    |
| 3             | $9\frac{1}{2}$                                 | 10.8                | F.B.                 | 125 and 160            |
| 5             | $6\frac{1}{2}$                                 | 10.4                | $\mathbf{R}$ .       | 160                    |
|               | 8  | 10.7                | F.B.                 | 125                    |
|               | 9<br>8   | 10.6                | $\mathbf{w}.$        | 125 (e)                |
| 7             | 8  | 11.3                | F.B.                 | 125                    |
| 12            | 10   | 11.2                | F.B.                 | 125                    |
| 16            | 9  | 11.3                | R.                   | 160                    |
|               | $9\frac{1}{2}$                                 | 11.1                | F.B.                 | 160                    |
| 27            | $7\frac{1}{2} \\ 7\frac{1}{2} \\ 9\frac{1}{2}$ | 11.7                | F.B.                 | 125                    |
|               | $7\frac{1}{2}$                                 | 12.0                | w.                   | 125                    |
| Nov. 5        | $9\frac{1}{2}$                                 | 12.6                | F.B.                 | 125                    |
| 28            | $7\frac{1}{2}$                                 | 13.2                | <b>F.B.</b>          | 125 and 160            |
| Dec. I        | 8  |                     | F.B.                 | 125 $(f)$              |
| 4             | 8  | 13.6                | <b>F.</b> B.         | 160 and 295 $(g)$      |
| 10            | 8  | 14.0                | <b>F.B.</b>          | 295 (h)                |

The following observations of magnitude were made with the Transit circle:—

| Day and Hour. |                                       | Observed Magnitude. | Observer.     | Power used. |
|---------------|---------------------------------------|---------------------|---------------|-------------|
| Sept. 21      | $rac{	ext{h}}{	ext{I} 2 rac{1}{2}}$ | 9.7                 | R.            | 80          |
| 25            | $12\frac{1}{3}$                       | 9.2                 | $\mathbf{R}.$ | 115         |
| 26            | $12\frac{1}{4}$                       | 9.7                 | F.B.          | 143         |
| 30            | 12                                    | 10.2                | <b>F.B.</b>   | 143         |
| Oct. 5        | $II\frac{3}{4}$                       | 10.4                | R.            | 143         |
|               |                                       | Remarks.            |               |             |

(a) Reddish; very slightly fainter than Arg.  $Z + 40^{\circ}$ , No. 165 (mag. 7.9) and No. 167 (mag. 7.7).

(b) Yellowish-red. Suspicion of a faint companion. With power 125 Nova duller, like a comet nucleus.

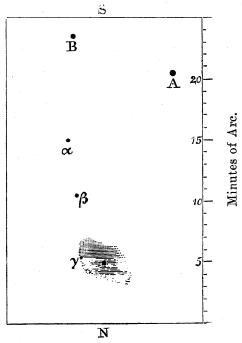
(c) With power 125 Nova dull and flat, stars bright and sharp.

(d) This observation was hurriedly made, the observer being on duty with the Transit circle. Transit circle mag. by Observer R. gives 9.5.

(e) Seems somewhat brighter than on Oct. 1.

- (f) Nova and condensation still distinctly visible; mag. not observed.
  (g) Condensation more distinct than Nova, which was extremely faint.
- (h) Nova only just discernible; nucleus or condensation of nebula and  $\gamma$  distinctly visible.

The following is a chart of approximate positions of the stars used for comparison of magnitudes:—



The adopted observed magnitudes of the above comparison stars are as follows:—

A = 9.0 
$$\beta = 11.4$$
  
B = 9.0  $\gamma = 13.0$ 

The approximate observed places for 1885, January 1, obtained with the 10-foot Equatorial, are—

|         |     |              | •   |              | _                               |
|---------|-----|--------------|-----|--------------|---------------------------------|
|         |     | Approx. R.A. |     | Approx. N.P. | D.                              |
|         |     | h m s        |     | 0            |                                 |
| α       | ••• | 0 36 11      | ••• | 49 31.4      |                                 |
| ${f B}$ | ••• | 0 36 13      | ••• | 49 40.3      | Arg. $z + 40^{\circ}$ , No. 145 |
| β       | ••• | 0 36 17      |     | 49 27 I      |                                 |
| γ       | ••• | o 36 18      | ••• | 49 22.1      |                                 |
| Nova    | ••• | 0 36 27      | ••• | 49 21.7      |                                 |
| A       | ••• | o 36 58      | ••• | 49 37.2      | Arg. $z + 40^{\circ}$ , No. 149 |

Observers.—W.=Mr. W. Wickham; R.=Mr. W. H. Robinson; F.B.=Mr. F. A. Bellamy.

Radcliffe Observatory, Oxford: 1885, Dec. 11.

On a Suspected New Variable Star in Corona Borealis.

By J. E. Gore.

With reference to Mr. Chambers' paper in the Supplementary Number of the Monthly Notices (No. 9, vol. xlv.), I beg to point out that the red star Birmingham 361 (=Schj. 182) is identical with the known variable star V Coronæ (No. 109 of my Catalogue of Known Variable Stars), its variability having been discovered by Dunér in 1878, and confirmed by the observations of Chandler, Hartwig, Safarik, Schmidt, and Wilsing. The variation is from 7.5<sup>m</sup> to 12<sup>m</sup>, and the period about 359½ days. The following maxima have been observed:—

 1878, Oct. 5
 ...
 ...
 Dunér.

 1879, Oct. 12
 ...
 ...
 Schmidt.

 1881, Oct. 3
 ...
 Schmidt.

 1882, Sept. 15.6
 ...
 Schmidt.

 1883, Sept. 24 (7.7m)
 ...
 Chandler.

 1883, Sept. 5
 ...
 Schmidt.

The red star observed by Mr. Chambers on August 13, 1885, was most probably *V Coronæ*, as a maximum was due this year early in September. I may add that, according to Chandler, the period given above agrees well with the invisibility of the star to *Birmingham* in 1873 and 1874, and the observations by Ball in 1876, and by Dreyer in 1879 and 1880.

Ballysodare, Co. Sligo: 1885, Nov. 19.

Occultation of Uranus, 1885, December 1. By the Rev. S. J. Johnson.

Disappearance at the Moon's bright limb took place at a point in a line with Marius north of Grimaldi, at 4<sup>h</sup> 56<sup>m</sup> 16<sup>s</sup> morning. Sky perfectly clear. Reappearance 6<sup>h</sup> 6<sup>m</sup> 42<sup>s</sup>, also in a clear sky. Time by sextant. With power of 50 on 3½ inches, planet rather minute at immersion; at emersion bright and distinct, somewhat between a planetary disc and a star. Some interest is attached to this phenomenon from the fact of the planet having disappeared six minutes before the predicted time in March 1871 (calculated from former tables), several observers, being on that occasion disappointed of the observation.

Melplash Vicarage, Bridport: 1885, Dec. S.